

**LCD PROJECTION SYSTEM AND ILLUMINATION DEVICE
THEREOF**

ABSTRACT

5 The present invention relates to an illumination device of an LCD projection system. The illumination device comprises a light source, a quarter-wave retardation and a wire grid polarizer. The light source is used for providing light. The quarter-wave retardation is disposed near the light source. The wire grid polarizer is disposed parallel to the quarter-wave retardation, and is associated with the quarter-wave retardation to polarize the light from the light source. P-polarized light can pass through the wire grid polarizer. S-polarized light cannot pass through the wire grid polarizer, and is reflected to the quarter-wave retardation to become circular polarized light. The circular polarized light is reflected by a parabolic surface of the light source and passes through the quarter-wave retardation again to convert into p-polarized light. The converted p-polarized light can pass through the wire grid polarizer. Therefore, the illumination device of the invention can provide high-efficiency polarized light. The illumination device can achieve high polarization conversion efficiency, and can be manufactured easily to reduce costs.

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